

SAFETY EVALUATION REPORT

DOCKET: 70-27

LICENSE: SNM-42

LICENSEE: BWXT Nuclear Operations Group, Inc.
Lynchburg, Virginia

SUBJECT: SAFETY EVALUATION REPORT: BWXT NUCLEAR OPERATIONS GROUP, INC. - LYNCHBURG REQUEST FOR REGULATORY RELIEF FROM CONDUCTING THE 2020 ANNUAL EVACUATION DRILL

1.0 INTRODUCTION AND BACKGROUND

By letter dated May 26, 2020 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML20147A664), BWXT Nuclear Operations Group, Inc. – Lynchburg (BWXT NOG-L) requested relief from certain U.S. Nuclear Regulatory Commission (NRC) regulatory requirements to avoid potential impacts from the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE). The request relates to relief from the commitment in its Emergency Plan to perform an annual evacuation drill. Paragraph 4.3, “Drills and Exercises,” of the Emergency Plan specifies the requirement that an evacuation drill shall be conducted annually involving the entire complex. BWXT NOG-L’s next evacuation drill is due by August 25, 2020. In its letter, BWXT NOG-L committed to require all personnel with unescorted access to watch a short presentation showing the evacuation area and explaining their evacuation responsibility as part of the 2020 training. BWXT NOG-L also committed to resuming the annual evacuation drill in 2021 and beyond.

This safety evaluation report documents the NRC staff’s review of this relief request. The relief from Paragraph 4.3 of the Emergency Plan will be documented in a revised Safety Condition (S-2) within License Number SNM-42.

The U.S. Secretary of Health and Human Services declared a PHE on January 31, 2020, which was renewed on April 26, 2020, under Section 319 of the Public Health Service Act (Title 42 of the U.S. Code Section 247d), in response to COVID-19. As a result of the COVID-19 PHE and the size of the evacuation area, BWXT NOG-L recognizes the potential for increased risk of virus transmission among employees during an evacuation. During the NRC’s review, conditions of approval were identified to clarify the compensatory actions and timeframe associated with the regulatory relief.

2.0 REGULATORY EVALUATION

The NRC may grant a licensee’s request to amend its license if the staff determines that the application meets the requirements of Section 70.34, “Amendment of licenses,” of Title 10 of the *Code of Federal Regulations* (10 CFR), which includes:

- 10 CFR 70.21(a) for the application for a license amendment;
- 10 CFR 70.35, “Commission action on applications to renew or amend;”
- 10 CFR 70.23, “Requirements for the approval of applications;” and
- 10 CFR 70.22(i) for applicants required to submit an emergency plan.

For changes to emergency preparedness commitments, the NRC may amend a license if the staff determines that requested changes will maintain adequate protection of public health and safety and the environment, and not be inimical to the common defense and security.

2.1 REGULATORY REQUIREMENTS

Although the regulations in 10 CFR 70.22(i)(3) do not specify a requirement to conduct a site personnel only annual evacuation drill, 10 CFR 70.22(i)(3)(x), "Training," states:

A brief description of the frequency, performance objectives and plans for the training that the licensee will provide workers on how to respond to an emergency including any special instructions and orientation tours the licensee would offer to fire, police, medical and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios.

2.2 REGULATORY GUIDANCE

Regulatory Guide (RG) 3.67, "Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities," Revision 1, dated April 2011 (ADAMS Accession No. ML103360487), states, in part:

Describe provisions for periodic drills and exercises to test the adequacy of implementing procedures, to test emergency equipment and instrumentation, and to ensure that the emergency personnel are familiar with their duties.

3.0 TECHNICAL EVALUATION

Section 4.3, of the BWXT NOG-L Emergency Plan current states, in part:

An evacuation drill shall be conducted annually involving the entire complex, which includes all facilities contained within the main plant fence, Shipping and Receiving, Waste Treatment, Recycle, Security facilities, the LTC, and other facilities outside the NOG-L fence.

BWXT NOG-L states that this evacuation drill is only for site personnel, and was last performed on June 27, 2019. BWXT NOG-L's license SNM-42, defines annual as within 365 days with a maximum extension of 60 days (425 days), which equates to an evacuation drill completion date of August 25, 2020.

BWXT NOG-L states that the evacuation assembly area is approximately 275 feet long by 80 feet wide (22,000 square feet). As recommended by the Center for Disease Control (CDC) social distancing guidelines, this space will accommodate approximately 611 individuals when spaced 6 feet apart (36 square feet per person). However, under these recommended social distancing guidelines, the evacuation area is inadequate to safely conduct the evacuation drill without increasing the possibility of COVID-19 transmission because the typical staffing levels of the site are higher than the approximate number of individuals. In addition, BWXT NOG-L also states that the CDC cautions that being in close and continuous contact for more than 10 minutes without social distancing increases the possibility of COVID-19 spread. Since the

annual evacuation drill at BWXT NOG-L would take more than 10 minutes to conduct, BWXT NOG-L requests an amendment to SNM-42 granting regulatory relief from performing the evacuation drill until July 1, 2021.

BWXT NOG-L has concluded that not performing an evacuation drill in 2020 will have little to no impact on personnel knowing how and where to evacuate. As justification, BWXT NOG-L provides the following:

- Evacuation training for employees occurs every year in preparation for the annual evacuation drill. This training covers evacuation routes and exits to be used by personnel on the site in the event of an actual evacuation. This training is provided to all site employees, residents, vendors, and contractors with unescorted access to the site. BWXT NOG-L says that this training is adequate to ensure personnel understand their responsibilities and evacuation routes during an emergency.
- The evacuation assembly area is immediately adjacent to an exit portal used by all personnel on a daily basis. Thus, not performing an evacuation drill in 2020 will have little to no impact on personnel knowing how and where to evacuate.
- For the last 10 years of evacuation drills, the BWXT NOG-L leadership team had only two cases where 100 percent accountability was not achieved. In the first case, a person was reported as not being on site when they were in fact on site (front line manager believed the employee was leaving before the drill occurred), and in the second case, a holdout employee on second shift was not accounted for during the drill.
- As a compensatory measure for not conducting the annual evacuation drill in 2020, BWXT NOG-L will require all personnel with unescorted access to watch a short presentation showing the evacuation area and explaining their evacuation responsibility as part of the 2020 training.
- The planned training provides a comparable level of safety to the annual evacuation drill given under the social distancing requirements in response to COVID-19.
- There will be no impact to the public by not conducting an evacuation drill in 2020 because the drill is only for BWXT NOG-L site personnel.

For the reasons stated above, BWXT NOG-L concludes that not performing an evacuation drill in 2020 will have little to no impact on applicable site personnel knowing how and where to evacuate. BWXT NOG-L also concludes that there will be no impact to the environment, safety, or the common defense or security by not performing an evacuation drill in 2020.

As stated previously, while the regulations in 10 CFR 70.22(i)(3) do not specify a requirement to conduct a site personnel only annual evacuation drill, 10 CFR 70.22(i)(3)(x), "Training," does require, in part, that training shall familiarize personnel with site-specific emergency procedures and that the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios. The guidance of RG 3.67, Section 5.4.1.1, "Personnel Evacuation and Accountability," states in part, that an emergency plan should include the provisions for determining and maintaining the accountability of assembled and evacuated personnel. As listed in BWXT NOG-L's letter, for the last 10 years of evacuation drills, the BWXT NOG-L leadership team had only two instances where 100 percent accountability was not achieved. As

such, the NRC staff finds that the evacuation drill performance over the last 10 years has maintained the accountability of assembled and evacuated onsite personnel.

RG 3.67 Section 7.3, "Drills and Exercises," states, in part, that each applicant should establish a drill frequency that will maintain proficiency in its emergency response organization. The NRC staff has reviewed the emergency preparedness aspects for NRC inspections of the BWXT NOG-L Emergency Preparedness Program. The NRC staff selected inspection reports which observed the BWXT NOG-L recent biennial exercise and two recent evacuation drills, which are listed in the table below.

NRC Inspection Reports of NRC Observed Annual Evacuation Drill			
Inspection Report Number	Part of the Inspector's inspection activities	Date of Exercise/Drill	ADAMS Accession No.
70-27/2019-005	Observed licensee's graded biennial exercise, observed Emergency Response Organization verification that all required positions were staffed, observed licensee's emergency response members assemble at the designated assembly area	October 30, 2019	ML20024F642
70-27/2019-003	Observed the annual evacuation drill for all employees on the first shift, participated in the evacuation, observed alarms and alarm response of BWXT NOG-L employees, reviewed the final emergency drill package to verify BWXT NOG-L staff were properly identifying emergency preparedness-related issues	June 27, 2019	ML19211D562
70-27/2018-003	Observed annual evacuation drill for all employees on all three shifts, participated in the evacuation, observed alarms and alarm response of BWXT NOG-L employees, reviewed the post-exercise summary and lessons learned to determine whether BWXT NOG-L staff were properly identifying emergency preparedness-related issues	June 28, 2018	ML18200A033

In addition, the inspectors observed the post-drill critiques and reviewed the final drill package to verify that BWXT staff were properly entering emergency preparedness issues into the corrective action program. These inspections documented that no violations of more than minor significance were identified, and as such, along with the above listed evaluation findings, demonstrate that BWXT NOG-L has established and maintained proficiency during previous annual evacuation drills. Based on the previous site personnel annual evacuation drill history and the licensee's above listed training activities, the NRC staff has determined that suspension of the 2020 Annual Evacuation Drill performance will not reduce the effectiveness of site

personnel's ability to safely evacuate to the proper location in a timely manner. In addition, the NRC staff finds that suspension of the 2020 annual evacuation drill performance will not reduce the effectiveness of the BWXT NOG-L Emergency Plan.

Therefore, the NRC staff concludes that the proposed amendment to not require the performance of the annual evacuation drill in 2020 continues to meet the applicable criteria of 10 CFR 70.22(i)(3). However, this amendment is considered a temporary change by the NRC staff. After the annual evacuation drill performance is completed in 2021, this temporary BWXT NOG-L Emergency Plan change will be removed and the periodicity of the evacuation drill will go back to annual. As such, SNM-42 license condition S-2 should be revised to document the BWXT NOG-L Emergency Plan temporary change as follows:

General condition of approval:

S-2 The licensee shall maintain and execute the response measures in the Emergency Plan, Revision 32, dated May 27, 2019, or as further revised in accordance with 10 CFR 70.32(i). The regulatory relief below is granted due to potential impacts on Emergency Plan commitments from the Coronavirus Disease 2019 public health emergency.

- (a) As requested by the licensee in letter 20-041 dated May 26, 2020, the Emergency Plan is temporarily changed to not require the performance of the annual evacuation drill in 2020 until July 1, 2021. After the evacuation drill is completed in 2021, this temporary Emergency Plan change will be removed and the periodicity of the evacuation drill will go back to annual.

5.0 ENVIRONMENTAL REVIEW

The NRC staff determined that the proposed temporary change to the BWXT NOG-L Emergency Plan is administrative, organizational, or procedural in nature. The temporary change to the plan will not impact any effluents, will not result in any changes to radiation exposures, does not have construction impacts, and does not increase the potential for radiological accidents. Therefore, the amendment to temporarily revise the BWXT NOG-L Emergency Plan is categorically excluded from the requirements to prepare a site-specific environmental assessment consistent with 10 CFR 51.22(c)(11). In accordance with 10 CFR 51.22(d), neither an environmental assessment nor an environmental impact statement is warranted for this action.

6.0 CONCLUSION

The NRC staff concludes that the temporary change is acceptable, and the BWXT NOG-L Emergency Plan will continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency during this temporary relief period. Therefore, BWXT NOG-L will maintain adequate protection of public health and safety and the environment, and not be inimical to the common defense and security. The staff has determined that the application continues to meet the applicable requirements of 10 CFR 70.22(i)(3) and meets the requirements of 10 CFR 70.34.

PRINCIPAL CONTRIBUTOR:

Ken Mott, NSIR/DPR